

## REMARKS

The Interview Sumamry of September 21, 2006, includes the substance of the interview and is incorporated herein as the formal written reply thereto.

The rejection of claims under 35 USC 112, second paragraph, for the coherent transciever is traversed by deletion of the adjective.

The rejection of claims under 35 USC 112, second paragraph, for the analyzer of the continuum is not fully understood, because the claimed analysis is of the claimed radio frequencies including spectral lines. However, page 3, lines 5 and 6, of the specification provides that "... it analyzes the continuum by tuning itself to the coherent vibration modes arising from the complex long range EM processes ..." and further explanation follows in the specification to describe the analysis from the fundamental and harmonic spectral lines.

The rejection of claim 20 under 35 USC 112, second paragraph, is traversed on what is believed to be the ordinary meaning the applicant is presumed to use (*MPEP* 2106) where MHz frequencies range from 1 MHz to something less than 1 GHz even though decimal shifts could un-ordinarily shift the units.

The rejection of claims 19 - 21 under 35 USC 103 for obviousness from the Arjavalingham publication is traversed in part on this same ordinary meaning. While it is true that the Arjavalingham publication discloses a measured signal that contains 0 - 150 GHz in the middle of the right-hand column on page 6, the bottom of the column discloses analysis only of "typically 15-130 GHz" and GHz frequency analyses are confirmed in Figs. 2 and 4, for example, not to mention the issues of analyzing 0 GHz.

**PRIOR ART MUST BE CONSIDERED IN ITS  
ENTIRETY, INCLUDING DISCLOSURES THAT TEACH  
AWAY FROM THE CLAIMS** *MPEP* 2141.02 VI (emphasis  
original)

The rejection of the these and the other claims from the Arjavalingham publication is also traversed by the claimed analysis of or from spectral lines of a fundamental frequency and an harmonic thereof. As shown in Figs. 2 and 4 of the Arjavalingham publication, for example, the Arjavalingham publication analyzes amplitude vs. frequency for various orientation angles and not spectral lines of a fundamental frequency and an harmonic thereof, as claimed.

The rejection of claim 14 and its dependent claims on this basis from the Arjavalingham publication is further traversed by the Jepson limitation of claim 14 to an animal-tissue analyzer (see, page 1, line 6 (as numbered) of the specification). No animal-tissue analyzer structure is disclosed in the publication entitled for polymers.

The terms in both the preamble describing the prior art and those elements constituting the improvement are substantive claim limitations. 37 CFR § 1.75(e). *Wells Mfg. Corp. v. Littlefuse, Inc.*, 192 USPQ 256 (7<sup>th</sup> Cir. 1976).

Even under the more-restrictive interpretation of the Patent Office that restricts the limitations of the preamble to structure, the structural requirements thereof are broad enough to encompass the amendment that now limits what the inventor actually invented as shown by the Affidavits/Declarations herewith.

The determination of whether preamble recitations are structural limitations can be resolved only on review of the entirety of the application "to gain an understanding of what the inventors actually invented and intended to encompass by the claim." *MPEP* 2111.02 I (citation omitted).

All of the same traversals apply to the rejections under 35 USC 103 for obviousness from the Robertson *Materials Research Society* reference and, indeed, more so, because it only discloses GHz frequencies. The amplitude vs. frequency inset in Fig. 2 should be compared to Figs. 1 - 3 of the application for the difference in results.

On page 69, the Robertson reference describes that:

... two samples of different thicknesses are inserted in turn between the transmitter and receiver and temporal waveforms are recorded ... to obtain the net contribution ....

According to the Robertson reference, two successive waveforms are compared to obtain results. According the claims, there is one radiating, not two, for analyzing spectral lines from the one and not comparing one to a next.

In short, although there are similarities in the elements of the references and the claimed invention, these elements are used differently according to the independent claims 1, 6 and 14. The resulting allowability of the independent claims permits allowance of the dependent claims.

Patentability may also be shown by objective evidence. *MPEP* 716.01(c). Objective evidence supporting patentability includes an unexpected property as evidence of nonobviousness. *MPEP* 716.02(a) III..

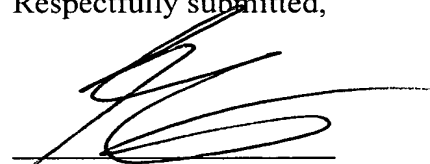
Attached hereto is an Affidavit/Declaration of Dr. Massimo Balma showing the development and industrialization from the application of a diagnostic device named TRIMprob that incorporates the invention.

Attached hereto is an Affidavit/Declaration of Prof. Andrea Tubaro describing prostate cancer diagnostic accuracy with a TRIMprob device. Neither the Arjavalingham nor the Robertson publications disclose or suggest a property of prostate cancer diagnosis, such property being, therefore, unexpected from the references and supportive of patentability.

Attached hereto is an Affidavit/Declaration of Prof. Rosario Sacco describing other cancer detections with a TRIMprob device. Neither the Arjavalingham nor the Robertson publications disclose or suggest a property of cancer diagnoses, such property being, therefore, unexpected from the references and supportive of patentability.

Reconsideration and allowance are, therefore, requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'William R. Evans', written over a horizontal line.

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